

CLAIMS:

1. A color display screen (5) comprising a plurality of cells (2), each cell (2) comprising:

a pixel (P) capable of providing a first output light of a first color and a second output light of a second color; and

5 a photosensitive device (D) for converting an optical display control signal (Li) comprising information about the first output light and the second output light into electrical signals (I) to control the first output light and the second output light, the photosensitive device (D) having decoding means (DM) for decoding the information about the first and the second output light.

10

2. A color display screen (5) as claimed in claim 1, the optical display control signal (Li) comprising a first optical display control signal comprising information about the first output light and having a first spectrum, and a second optical display control signal comprising information about the second output light and having a second spectrum, the

15 decoding means (DM) comprising a first wavelength sensitive filter for filtering the first optical display control signal, and a second wavelength sensitive filter for filtering the second optical display control signal.

20 3. A color display screen (5) as claimed in claim 1, each cell (2) comprising another photosensitive device (D), the pixel (P) comprising a first subpixel for providing the first output light, the first subpixel being coupled to the photosensitive device (D) and the other photosensitive device (D), each having decoding means (DM) comprising a first wavelength sensitive filter.

25 4. A color display screen (5) as claimed in claim 1, the optical display control signal (Li) comprising successively the information about the first output light and the second output light, the decoding means (DM) having means for activating the first output light and the second output light of the pixel (P) in synchronization with the information as successively comprised in the optical display control signal (Li).

5. A color display screen (5) as claimed in claim 4, the means for activating comprising a first switch and a second switch common to all of the photosensitive devices (D) of the plurality of cells (2), the pixel (P) comprising a first subpixel and a second
5 subpixel, each of the first subpixels of the plurality of cells (2) being coupled via the first switch to a first supply voltage, each of the second subpixels of the plurality of cells (2) being coupled via the second switch to a second supply voltage, the first switch and the second switch being operable in synchronization with the information .
- 10 6. A color display screen (5) as claimed in claim 4, the photosensitive device (D) further comprising a photosensitive element, the decoding means (DM) further comprising a reset switch for resetting the photosensitive element substantially between the information about the first output light and the second output light.
- 15 7. A color display screen (5) as claimed in claim 6, the pixel (P) comprising a first subpixel and a second subpixel, the photosensitive element being coupled to the first subpixel, the optical display control signal (Li) comprising in a first frame period the information about the first output light and in a second frame period the information about the second output light, the decoding means (DM) being adapted for decoding during the first frame period the information about the first output light and for driving the first subpixel
20 during the second frame period in dependence on the decoding during the first frame period.
8. A color display screen (5) as claimed in claim 1, the information about at least one of the first output light and the second output light being a modulation of the optical display control signal (Li); and the decoding means (DM) comprising means for demodulating the modulation of the optical display control signal (Li).
- 25 9. A color display screen (5) as claimed in claim 8, the means for demodulating the modulation being adapted for demodulating an AC component of the optical display control signal (Li).
- 30 10. A color display screen (5) as claimed in claim 2, the first wavelength sensitive filter being formed by a layer of the pixel (P).

11. A color display system (6) comprising a display screen (5) as claimed in claim 1, and an optical image source (3) for transmitting the optical display control signal (Li) to the photosensitive device (D).
- 5 12. A color display system (6) as claimed in claim 11, the optical image source (3) being a projection device or a laser scanner.
13. A set of color display screens (5) as claimed in claim 1, the color display screens (5) being arranged adjacent to each other in a tiled pattern.